

Exploring The Impact of Artificial Intelligence on Pantun Creativity

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Abstract

This research explores the influence of artificial intelligence (AI) applications, such as ChatGPT and Copilot, in creating pantun, a form of oral literature rich in cultural value. Utilizing a mixed-methods approach, the study evaluates the benefits, risks, and perspectives of literary figures regarding AI's role in the creative process. Findings indicate that AI can enhance efficiency, provide inspiration, and offer accessibility to beginners. However, it also presents challenges, such as potential declines in creativity, homogenization of works, and concerns regarding the quality and originality of pantun. While some literary figures perceive AI as a beneficial tool, others are skeptical about its effects on traditional literary values. This research underscores the importance of education, human-AI collaboration, and cultural awareness to preserve the quality of literary works in the digital age.

Keywords: artificial intelligence (AI); pantun; literature; creativity; literary creation.

In the increasingly evolving digital era, artificial intelligence (AI) has permeated various aspects of life, including the fields of art and literature. One traditional art form that is now influenced by this technology is pantun, a rhymed poem with high cultural value in Malay society. The use of AI in the creation of pantun opens up various opportunities and challenges for poets and literary figures, ranging from the ease of creating works to the potential decline in human creativity. This research aims to examine the benefits

and risks of AI in the ability to create pantun, as well as its impact on the preservation and innovation of traditional literature.

A. Introduction

Artificial Intelligence (AI) refers to the simulation of human intelligence processes by machines, especially computer systems. These processes include learning, reasoning, and self-correction (Russell & Norvig, 2021). ChatGPT and CoPilot are applications of AI, specifically natural language processing (NLP),

which generate human-like text responses. ChatGPT, developed by OpenAI, is designed to produce conversational responses and assist with various textual tasks, while GitHub's CoPilot provides coding assistance by predicting and generating code (Brown et al., 2020; Chen et al., 2021).

Pantun is a traditional form of Malay poetry that typically follows an ABAB rhyme scheme and contains four lines per stanza. It is known for its dual layers of meaning, often with the first two lines providing an allegory or metaphor and the latter two delivering the main message or moral (Sari & Supriadi, 2022).

In traditional Malay and Indonesian ceremonies, pantun often serves to break the ice and engage audiences. It adds a light-hearted and culturally rich element to speeches, fostering a sense of warmth and familiarity among listeners (Yusuf & Amin, 2023).

ChatGPT can be leveraged to generate pantun by using prompts that follow the pantun's structural guidelines, such as the ABAB rhyme scheme. Researchers have explored

AI's capabilities to mimic cultural forms like pantun, assessing its potential for both creative assistance and educational purposes (Halim et al., 2023).

B. Research Method

The literature review method is used to analyze existing research, books, and journals about artificial intelligence (AI), traditional pantun structures, and the use of AI tools like ChatGPT in creative writing. By gathering insights from recent studies, the literature review helps build a theoretical foundation to understand AI's impact on creative expressions such as pantun and examines previous findings about AI's applications in cultural and linguistic contexts (Xiao et al., 2022).

The experimental method involves using ChatGPT to generate pantun and assessing the creativity, structure, and cultural authenticity of its outputs. This approach allows for hands-on testing of ChatGPT's ability to follow the ABAB rhyme scheme and convey dual meanings typical of traditional pantun. Each pantun generated by ChatGPT is evaluated

based on criteria such as coherence, rhyme, cultural relevance, and creativity (Halim et al., 2023).

C. Results and Discussion

This part describe pantun, a traditional Malay poetic, serves as a cultural communication tool that conveys moral values and social messages, while AI-generated pantun highlights the contrasts between human creativity and machine learning in preserving and innovating this literary art.

Definition of Pantun

Pantun is a traditional Malay poetic form usually composed of four lines with an ABAB rhyme scheme. The first two lines, called sampiran, serve as an introduction, often depicting a visual or situational image, while the last two lines, or isi, convey the primary message or advice (Sari & Supriadi, 2022). Pantun serves as a communication tool that conveys messages indirectly while carrying moral and ethical values, making it an essential part of Malay cultural heritage.

The traditional structure of a pantun comprises four lines in a

stanza with an ABAB rhyme scheme and 8-12 syllables per line. The sampiran and isi components form a cohesive unit that delivers a unique poetic effect and rhythm, making pantun easy to remember and recite in various cultural and ceremonial contexts (Yusuf & Amin, 2023).

Types and Functions of Pantun

Pantun has various forms as shown in Table 1, including pantun nasihat (advice), pantun jenaka (humor), pantun cinta (love), and pantun agama (religion), each with specific functions. For example, pantun nasihat is used to convey moral messages, while pantun jenaka aims to entertain (Rahman & Dewi, 2021). In society, pantun strengthens social bonds and communicates messages subtly and memorably.

Table 1. Type Pantun

Type Pantun	Bahasa Indonesia	English
Advice Pantun	Jalan-jalan ke kota baru, Jangan lupa membeli	Strolling through the new town, Don't forget to

Type Pantun	Bahasa Indonesia	English
	roti. Jika ingin hidup bersatu, Saling menghargai setiap hari.	buy some bread. If you want unity in life, Appreciate each other instead.
Humorous Pantun	Pergi memancing di tengah danau, Ikan besar langsung di pancing. Mukanya serius tapi lucu, Tak tahan hati ingin tertawa kencang.	Fishing out on the lake, Catching big fish without a break. His face looks serious but funny, Laughing so hard it's sunny.
Love	Bunga	Roses

Type Pantun	Bahasa Indonesia	English
Pantun	mawar di taman depan, Harum mewangi tiap pagi. Wajahmu indah tak terlupakan, Hati ini selalu rindu menanti.	bloom in the front yard, Fragrant in the morning air. Your beauty is etched in my heart, Longing for you everywhere.
Religious Pantun	Jika ingin hidup selamat, Jangan lupa rajin ibadah. Dunia fana hanya sementara, Bekali diri di jalan berkah.	If you seek a life that's blessed, Never forget your prayer and deed. This world is but a brief quest, Prepare your soul

Type Pantun	Bahasa Indonesia	English
		with what you need.
Proverb Pantun	Hujan rintik di waktu pagi, Daun basah di ujung ranting. Air beriak tanda tak dalam, Orang diam banyaklah penting.	Morning rain falls soft and light, Leaves are wet on branches green. Shallow waters ripple bright, Silent people are often keen.

How AI Generates Pantun

ChatGPT, as an example of modern AI, utilizes natural language processing algorithms trained on a wide range of textual data, including literary genres. By following rhyme patterns and pantun structure, AI can generate pantun in an ABAB scheme, although it often falls short in

symbolic meaning and cultural depth since AI produces text based on data and statistical patterns rather than cultural understanding (Halim et al., 2023). Here the steps of pantun creation by AI.

Step 1	AI recognizes that pantun consists of 4 lines with the rhyme scheme a-b-a-b.
Step 2	AI selects words related to "friendship" to include in the last two lines (isi), then chooses neutral words for the sampiran that fit the rhyme.
Step 3	AI constructs sentences with the appropriate syllable count (8–12 syllables per line).
Result	Turun ke ladang mencari ikan, Naik perahu bersama teman. Sahabat sejati tak pernah pudar, Selalu ada dalam kenangan.

AI can create pantun because it is trained to recognize the patterns and structures of poetry, understand rhyme, and select words based on specific contexts. NLP technology and machine learning enable AI to compose pantun that adheres to traditional rules while remaining meaningful, whether for entertainment, formal, or creative purposes. We can make benchmarking Benchmarking between Human-Crafted Pantun and AI-generated Pantun shown in Table 2.

Table 2. Benchmarking between Human-Crafted Pantun and AI-generated Pantun (ChatGPT).

Type of Pantun	Human-Crafted Pantun	AI-Generated Pantun (ChatGPT)
Advice Pantun	Jika tidak ingin terjatuh, Hati-hati melangkahkan.	Belajar dari kesalahan, Jadikan pengalaman berharga.

	Belajar itu penting, Jangan hanya mengikuti hawa nafsu.	Setiap langkah berharga, Menuntut ilmu adalah wajib.
Humorous Pantun	Di pasar beli ikan lele, Ikan segar, sangat enak. Tertawa lepas tanpa henti, Humor adalah obat yang kuat.	Pergi ke kebun mencari bunga, Semua indah, hati pun ceria. Bunga-bunga tumbuh, oh sangat menawan, Tertawa bersama, bahagia tak terhitung.
Love Pantun	Bunga mawar di taman berduri, Harum semerbak	Dalam hening malam berbintang,

	menusuk kalbu. Cinta ini tulus tak bertepi, Hanya untukmu , oh kasihku.	Rindu ini semakin dalam. Setiap detik berharga, Hanya kamu yang ada di hati.
Religiou s Pantun	Ibadah itu kunci bahagia, Membaw a hati penuh cinta. Jangan lupakan doa pagi, Itu penganta r rezeki.	Jika ingin hidup berkat, Berdoalah dengan se penuh hati. Cinta kasih kepada sesama, Akan membawa mu pada surga.

**Differences Between AI-Generated
and Human-Crafted Pantun**

Human-created pantun often reflects emotional nuances and depth stemming from the creator’s cultural and social experiences. In contrast,

AI-generated pantun, such as those produced by ChatGPT, usually follow the correct rhyme scheme but lack authenticity in word choice and contextual meaning. AI produces pantun based on the patterns in its training data and lacks the experiential depth or cultural comprehension of human creators (Chen et al., 2021; Brown et al., 2020).

Impact of Pantun Use in Society

Pantun plays an important role in cultural preservation and identity reinforcement. It frequently appears in traditional events, speeches, and weddings as a way to honor oral traditions. Additionally, pantun strengthens social relationships and communicates ethical values in a creative manner. In the digital era, pantun can now be shared via social media, introducing this poetic form to a wider audience, especially younger generations (Wibowo & Hadi, 2022).

The use of AI in the creation of pantun also has the potential to impact the preservation and development of traditional literary culture.

- a. AI can be innovation in literature.

AI can serve as a bridge for innovation in pantun. By providing easy access for individuals to create, AI can encourage greater interest and engagement with pantun among younger generations. This can create new opportunities to learn about and appreciate traditional literature.

- b. AI can be potential for cultural preservation. By leveraging AI, there is the possibility of recording and documenting diverse forms of pantun, thus contributing to preservation efforts. AI can be used to analyse patterns and themes in pantun, helping researchers understand literary developments over time.
- c. AI can be risks of losing traditional values. However, if the use of AI is not balanced with an appreciation for the underlying cultural values and contexts, there is a risk that pantun will lose its meaning and depth. It is essential for poets to maintain traditions while utilizing technology to create relevant and meaningful works.

Impact on Pantun Creativity

AI can serve as a supportive tool in pantun creation, offering inspiration for beginner writers and aiding in the development of new variations in pantun patterns. However, overreliance on AI may diminish individual creativity and originality in crafting pantun. Writers who use AI to generate pantun may be less motivated to express personal experiences or deeply-rooted cultural values (Xiao, Zheng, & Lee, 2022; McCormick & Clark, 2022).

Behind the advantages of AI in creating pantun, it still has weaknesses:

- a. Lack of Emotional Nuance. AI often struggles to capture deep emotional nuances in pantun, as it lacks personal experiences or feelings like humans do. This results in generated pantun feeling flat or lacking depth (Halim et al., 2023).
- b. Insufficient Cultural Understanding. While AI can follow the correct structure and rhyme scheme, it often fails to convey rich cultural context and hidden meanings. This makes the outputs less authentic and unable

to reflect the cultural values intended (Chen et al., 2021).

- c. **Inappropriate Word Choices.** AI may produce word choices that are less appropriate or not aligned with the intended theme of the pantun, leading to a failure in effectively conveying the desired message (McCormick & Clark, 2022).
- d. **Inability to Adapt.** AI tends to operate based on existing patterns and data. When asked to innovate or create unusual variations, it may struggle to produce creatively unique works (Xiao, Zheng, & Lee, 2022).
- e. **Limited Ability to Create Meaningful Works.** Although AI can generate pantun following structural rules, it often lacks the depth of meaning and context derived from human experiences, resulting in outputs that feel mechanical and disconnected from the audience (Brown et al., 2020).
- f. **Risk of Losing Tradition.** The use of AI in creating pantun, without proper understanding or oversight, can lead to a loss of

meaning and depth inherent in traditional pantun. Without appreciation for the underlying values and context, pantun may lose its relevance (Wibowo & Hadi, 2022).

- g. **Inability to Convey Moral Messages.** Pantun often carries moral or advisory messages. AI may struggle to deliver these messages thoughtfully, resulting in a lack of appeal that traditional pantun possesses (Rahman & Dewi, 2021).

Although AI offers innovative tools for creating pantun and increasing accessibility, it often falls short in conveying the emotional depth and cultural nuances inherent in this traditional literary form. Therefore, it is crucial for poets to leverage technology while maintaining a commitment to the authentic values and meanings of pantun.

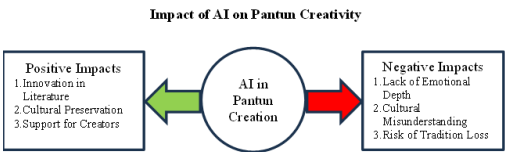


Chart 1. Analysis Impact of AI on Pantun Creativity

In general, the impact of AI on the creativity of pantun creation can be figured out in Chart 1. The exploration of the impact of artificial intelligence (AI) on pantun creativity reveals a dual nature of influence, highlighting both positive and negative aspects.

1. Positive Impacts

- a. Innovation in Literature. AI serves as a catalyst for innovation in pantun creation, enabling writers to explore new styles, themes, and forms. This technological advancement can spark renewed interest in traditional literature, making pantun more accessible and appealing to modern audiences.
- b. Cultural Preservation. AI plays a crucial role in documenting and preserving various forms of pantun, ensuring that diverse cultural expressions are maintained. By generating examples and analyzing existing works, AI can contribute to a richer understanding of pantun traditions.
- c. Support for Creators. For

writers, AI can function as a supportive tool that generates ideas, suggests themes, or provides rhyming schemes, allowing for enhanced creativity. This assistance can help both novice and experienced writers overcome writer's block and explore new creative avenues.

2. Negative Impacts

- a. Lack of Emotional Depth. One significant drawback of AI-generated pantun is its potential lack of emotional resonance. Unlike human creators who draw from personal experiences and emotions, AI may produce content that feels mechanistic or devoid of genuine feeling, which is often essential in poetry.
- b. Cultural Misunderstanding. AI systems may struggle with the nuanced cultural contexts of pantun, leading to misinterpretations or inappropriate content generation. This misunderstanding can undermine the authenticity and significance of traditional forms.

- c. **Risk of Tradition Loss.**
Overreliance on AI for pantun creation may lead to a decline in traditional crafting skills among human poets. As writers become more dependent on AI tools, there is a concern that the rich cultural heritage embedded in pantun could be overshadowed by a preference for technologically generated content.

Overall, the analysis highlights that while AI significantly influences pantun creativity by introducing innovative opportunities and facilitating cultural preservation, it also presents challenges related to emotional depth and cultural authenticity. Balancing the use of AI with a commitment to preserving the essence of traditional pantun is crucial for the future of this literary form.

From the discussion above, several recommendations for poets and literary figures in facing this phenomenon are:

- a. **Using AI as a Helpful Tool.**
Poets are advised to use AI as a

supportive tool in their creative processes, not as a replacement for their own creativity. They can utilize the outputs generated by AI as inspiration or references to create deeper and more meaningful works.

- b. **Creating Collaboration Between Humans and Machines.**
Encourage collaboration between poets and AI technology, where both elements can complement each other. Workshops or training that teach how to integrate AI into the writing process could be a positive step.
- c. **Maintaining Quality and Originality.**
Poets should continue to focus on developing writing skills and a deep understanding of literature so that they can produce works that are not only technically sound but also rich in meaning.

Encouraging Discussion and Education. Organizing discussions and seminars about the impact of AI in literature can raise awareness and understanding of related issues. This

can also open spaces for poets to share their experiences and views on the use of AI.

D. Conclusion

In conclusion, the exploration of artificial intelligence (AI) reveals its significant impact on pantun creativity by providing both opportunities and challenges. AI enhances accessibility to the art form, allowing for greater experimentation and engagement among writers. However, its limitations, such as a lack of emotional depth and cultural understanding, may compromise the authenticity and richness of pantun. The relationship between AI-generated content and traditional human creativity underscores the necessity of balancing technological advancement with the preservation of cultural values in this poetic expression.

To harness the positive impact of AI on pantun creativity, it is essential for poets and literary figures to utilize AI as a supportive tool in their writing processes while ensuring that the cultural essence of pantun

remains intact. Encouraging collaboration between human creators and AI systems can lead to innovative outputs that respect traditional values. Additionally, conducting workshops and discussions can raise awareness about the implications of AI in literature, guiding poets to explore new forms within the framework of pantun while maintaining a focus on the emotional and cultural nuances that define this art form.

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